REMARKS

Applicants have amended independent claims 1 and 17 to more precisely claim the invention, namely that the novel Q-switch produces laser pulses in which pulse durations and pulse repetition frequencies are varied. Claim 2 has been amended to be consistent with the amendments made to claims 1 and 17.

The Examiner has rejected claims 1-4, 9-11 and 13-17 under 35 U.S.C. §103(a) as obvious over U.S. Patent No. 5,832,008 (Birnbaum et al.) in view of U.S. Patent No. 4,833,333 (Rand). The arguments in support of this rejection are set out in item No. 4 on pages 3-6 of the Official Action, and not repeated herein.

Dependent claims 9, 10 and 13 have also been rejected under 35 U.S.C. §103 for the reasons set forth in item Nos. 5, "1", and 6, respectively. See pages 6-8 of the Official Action.

Finally, the Examiner has rejected claim 17 under 35 U.S.C. §103 as obvious over U.S. Patent No. 5,802,083 (Birnbaum 2) in view of Birnbaum '008. The arguments advanced in support of this rejection are discussed in item No. 7 on pages 8-9 of the Official Action and not herein repeated.

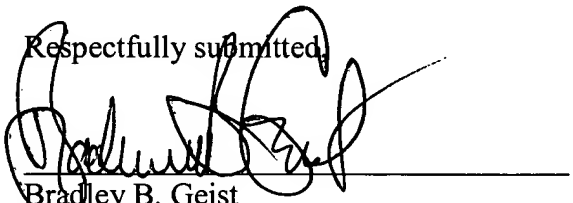
Applicants note that the Examiner has determined that claims 6-8 and 12 recite allowable subject matter.

Applicants respectfully traverse all pending grounds for rejection of claims 1-4, 9-11, and 13-17, noting that if independent claims 1 and 17 as amended are allowable, then all claims depending therefrom should also be found allowable.

Applicants contend that the applied references, Birnbaum, Rand, Kitoh, Birnbaum 2, and Young (ISBN 0-387-16127-9) do not teach or suggest tuning pulse durations or pulse repetition frequencies. While changing wavelength is important, for example, in telecommunications resulting in switching channels, changing pulse durations and pulse repetition frequencies are important, for example, in micromachining applications, Further, optically polished and coated surfaces with varying transmissivity do not only provide a mechanism of changing the amount of radiation density entering the semiconductor wafer, hence variable amount of saturable absorption through EL2 absorption, but function as the two surfaces of an optical Fabry-Perot cavity as well. The passive Fabry-Perot cavity due to the coatings on the semiconductor substrate provides a key factor in the performance of the passive Q-switch capable of producing the pulse variables claimed herein.

In view of the foregoing amendments and remarks, Applicants request reconsideration and allowance of the pending claims.

Respectfully submitted,



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